Date: Wed, 17 Aug 94 04:30:20 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #265
To: Ham-Ant

Ham-Ant Digest Wed, 17 Aug 94 Volume 94 : Issue 265

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: 16 Aug 1994 17:00:26 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!europa.eng.gtefsd.com!
uhog.mit.edu!news.kei.com!ssd.intel.com!chnews!scorpion.ch.intel.com!
cmoore@network.ucsd.edu
Subject: Constant SWR?
To: ham-ant@ucsd.edu

Recently I helped a tech with a problem he was having getting out on
146 MHz. I'm going to alter the parameters to make the math easier
but, in a nutshell, he was running 5 watts into 100 ft of RG-58 to
a ground plane antenna. One day he stopped receiving as well as
he normally did. He measured his SWR for the first time and it was
1.5/1 which he thought was just fine. He could not understand what
was wrong based on what he had been told in his tech class, namely:

1. One can assume that SWR is constant from end to end on a
   transmission line.

2. One can assume that a transmission line is lossless.

3. One can assume that any SWR below 3/1 is OK.

Even before his lightning problem (I assume that's what blew the caps
in his antenna) when his SWR was probably 1/1, he was losing 6db
of his power in the RG-58 so he was radiating a little over one watt.
Transmission line is never lossless. 6db is normal loss for 100 ft of
RG-58 on 2m. How many hams are using RG-58 on vhf/uhf?

After his antenna caps blew, the SWR at the antenna probably went from
1/1 to 10/1 while his transmitter end SWR went from 1/1 to 1.5/1.
SWR is not constant along a transmission line because of losses.
He was now losing 11db of his power and couldn't hear or
get out as well with a third of a watt.

He got his antenna repaired and replaced the RG-58 with 9913 and is
amazed at the difference. Everything has improved by about an 'S' unit
from his original setup.

Just want to point out that SWR circles on a Smith Chart are not circles
in reality. From the load they spiral inward because of transmission line
losses which may or may not be neglible depending on conditions.

73, Cecil, KG7BK, OOTC (Not speaking for Intel)
--
Intel, Corp.
5000 W. Chandler Blvd.
Chandler, AZ 85226

Date: Tue, 16 Aug 1994 17:00:55 GMT
From: news.cerf.net!gopher.sdsc.edu!news.tc.cornell.edu!
travelers.mail.cornell.edu!news.kei.com!uhog.mit.edu!news.mtholyoke.edu!
news.umass.edu!news2.near.net!das-news.harvard.@@ihnp4.ucsd.edu
Subject: dual band antenna recipe
To: ham-ant@ucsd.edu

I'm looking for instructions for a homemade
dual band(2m/440) antenna for my car. If anyone has
one or knows where I can find one please let me know.
Thanks in advance.
mike-KA3RTR

Date: 16 Aug 1994 22:49:03 -0400

From: newstf01.cr1.aol.com!search01.news.aol.com!not-for-mail@uunet.uu.net
Subject: MFJ vs. AEA IsoLoop?
To: ham-ant@ucsd.edu

In article <321mf7$j97@watnews1.watson.ibm.com>,
uri@valhalla.watson.ibm.com (Uri Blumenthal) writes:

I just bought an AEA Isoloop last weekend, and have only used it a little.
 So far, I have worked N. Carolina on 30, and Maryland and California on
20, from my condo QTH in Louisiana, with the antenna indoors, running
about 40 watts. It seems that HF conditions haven't been spectacular, so
I haven't really been able to make a good test. I also have an S5 noise
level on 20a, which makes QSOs even harder. It does what it should do,
but I'm waiting for an opportunity to make a better test.

Jon - KB5IAV

Date: Tue, 16 Aug 1994 14:52:26 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!gatech!wa4mei!
ke4zv!gary@network.ucsd.edu
Subject: REC. for compact 10m beam ant.??
To: ham-ant@ucsd.edu

In article <32otmd$ptd@hpchase.rose.hp.com> pvj@hprnd.rose.hp.com (Paul Jacobson)
writes:
>   I've got very limited space above and around my house as it is not
> that big. I'd like to run a beam on 10m but need something somewhat
> compact. Do any of you have any recommendations on a quality beam of
> this nature??

A full size 4 el 10 meter yagi only needs a 17 ft diameter clear circle.
If you don't have that much room, your house is *really* small. A 2 el
quad only needs a 9 foot diameter circle, certainly you'll have room for
that. If not, then you're stuck using a vertical or an AEA Isoloop.

I'd go with the quad, they're simple to build in that size range, and
they have decent HF performance.

Gary
--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | | gary@ke4zv.atl.ga.us

Date: 17 Aug 1994 00:04:21 GMT
From: news.tek.com!tekgp4.cse.tek.com!royle@uunet.uu.net
Subject: Screw on BNC
To: ham-ant@ucsd.edu

The BNC connector thread reminds me of a time in a previous life when I was a radar technician in the Air Force. We were installing a search radar site in Korea and were in the midst of the tedious job of tailoring the multitude of cables connecting about 20 scopes in the command center. One day a group of Korean troops showed up to help us out. I didn't know technical Korean (only useful stuff like "How much for the beer"), and the troop who came to help me didn't speak any English, so I demonstrated how to put on a BNC connector. This was the kind that screws together. Now, the BNC is held together by a rubber washer that's expanded by a specially-shaped metal washer when the connector is screwed together. A common mistake is to put the metal washer on upside down. If you do this, the rubber washer doesn't expand right, and the connector comes off easily. If it's put on right, there's no way it'll come off. After my demo, the Korean began putting the cable together, and I went to work on a power cable. After a while, he handed me the cable with the connector on. I gave it our standard test: grab the connector in one hand, and about 3 feet down the cable with the other. Hold your hands together so the cable makes a U-shaped loop. Then yank your hands apart to snap the cable straight. The connector came right off. So I carefully demonstrated again, emphasizing by signs about which way to put on the metal washer. He went back to work on the BNC, and I on the power connector. By and by, he handed me the cable with connector again, and I did the test again. Off it popped. He looked at me strangely, shrugged, and walked off. Never saw him again. I imagine his thought was "What kind of deal is this? I put this connector on, and he keeps pulling it off. That's enough of this stupid game. . ."

Roy Lewallen, W7EL
roy.lewallen@tek.com

Date: Tue, 16 Aug 94 23:21:33 -0500
From: news.delphi.com!usenet@uunet.uu.net
To: ham-ant@ucsd.edu

References <CtH91I.Io9@ucdavis.edu>, <w4qo.775888942@atl1>,
<1994Aug3.163819.29347@sol.cs.wmich.edu>
Subject : Re: ??Loop or dipole ..BEST??

A folded dipole over a loop? ha ha ha ha ha ha ha ha .

Date: Tue, 16 Aug 94 23:28:28 -0500
From: news.delphi.com!usenet@uunet.uu.net
To: ham-ant@ucsd.edu

References <1994Aug8.224434.10825@sol.cs.wmich.edu>, <CuA9p6.6EC@nrd.ups.com>,
<1700EBF43.R0264@vmcms.csuohio.edu>fi
Subject : Re: ??Loop or dipole ..BEST??

[Con the height, of course.

Date: Wed, 17 Aug 94 00:21:07 -0500
From: news.delphi.com!usenet@uunet.uu.net
To: ham-ant@ucsd.edu

References <32ht1s$ch8@chnews.intel.com>, <32jngh$sg4@search01.news.aol.com>,
<32nr9o$pv6@hopscotch.ksr.com>
Subject : Re: Should feedline lenght change the VSWR?

Praise the Lord! Finally, someone (John F. Woods) with the right answer!

End of Ham-Ant Digest V94 #265
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